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Taiwan

Solid Wood Products

Annual

2002

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Report Highlights:
Taiwan recorded significant drops in nearly all key wood product indicators during 2001 due to generally soft consumer demand. Indications that Taiwan's economic downturn has bottomed out leads to expectations that demand, while remaining tepid through 2002, should begin to recover in 2003. Imports for wood products such as furniture, interior design hardwoods, and DIY lumber products should directly benefit from economic recovery. Wood used in construction continues to post healthy gains, albeit from a small base, particularly in the glulam and treated southern yellow pine (SYP) categories. The former has been successfully promoted in recent years for use in structural applications, while treated SYP is currently used in a wide-variety of public beautification applications.

Includes PSD changes: Yes
Includes Trade Matrix: Yes
Annual Report
Taipei ATO [TW2], TW

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Executive Summary

In recent history, Taiwan has been both a major producer of quality hardwoods and a regional powerhouse in wood products manufacturing. However, elimination of most of the island's commercially valuable timber and the flight of wood processing industries to markets where labor was cheaper radically changed the amount and composition of Taiwan's wood consumption within the space of only a decade or so.

Taiwan is at an important turning point in its wood consumption profile. With a population focused on sacrifice, work, and frugal living, Taiwan authorities spent much of the 1990s struggling to implant a definition of "leisure time" into the island's busy schedule. The Taiwan workweek has, in the space of several years, shrunk from 48 to 40 hours and the government is backing an island-wide effort to make Taiwan a more "leisure-friendly" place. Community zoning rules are being updated - with businesses gradually relocating out of residential communities; municipal and national parks are disposing of cement and steel in favor of wood benches, viewing platforms, and shade trees; and national infrastructure projects are greatly improving access to the wealth of activities available beyond Taiwan's crowded cities.

The upshot of this historic change is that Taiwan, current economic uncertainties notwithstanding, is gradually maturing into a market for quality leisure products and services. With the island's large middle class, a GDP approaching US$13,000 per capita, and increasing confidence in the future, Taiwanese are seeking new and creative ways to spend their money. In the home, increasing living space (thanks to a fall in real estate prices) and more time with family translates into more money spent on home improvements. A Taiwanese penchant for parquet flooring, hardwood furniture, and decorative wood should spell opportunity to US exporters of hardwoods and hardwood products. Also, an increasing pool of affluent professionals, coupled with concern about earthquakes and the environment, has fed an upswing in interest in wood frame construction - making prospects for this sector exciting over the mid- to long-term. Construction laws are slated to put structural wood on a regulatory level playing field with concrete and steel by mid-2003. This revision promises to give developers, for the first time, a regulatory framework within which to develop multiple-family and commercial properties using structural wood (2x4 and post-and-beam). Demand for greater aesthetics in public and commercial building projects has already encouraged architects and builders to incorporate structural and engineered (glulam) wood into their designs. The success of projects already completed and now in the works may prove the spark needed to fuel broad-based market demand here for these products.

While wood will never eclipse other materials for structural use and will continue to face tough competition from other materials in furniture, flooring, and other applications, a strong appreciation of the value and beauty of wood, coupled with the means to pay for products, make Taiwanese consumers natural targets for US exporters. Guided by appropriate market approach strategies, exporters of US wood and wood products should find good opportunities for sales growth into Taiwan.

The ATO is dedicated to assisting US exporters of agriculture products to compete in overseas markets. To learn more about this market and begin developing contacts, you are welcome to make use of our resources here in Taiwan. For inquiries regarding forest products, please contact the ATO office in Taipei via the following: e-mail: ATO@mail.ait.org.tw; fax: (886.2) 2305.7073; phone: (886.2) 2337.6525.

Production

FOREST RESOURCES

Although not readily apparent when looking out over the densely populated, foliage-deficient city of Taipei, the island of Taiwan is cloaked in forest over nearly 60 percent (2.0 million hectares) of its land mass. For much of the 20th century, both the logging industry and wood exports contributed significantly to the island's GDP. Felled virgin stands of cypress, fir, camphor, and oak helped fund Japan's development up through the Second World War (Taiwan was under Japanese rule from 1895 to 1945) and provided essential hard currency exports for the Nationalist Chinese regime after they retreated from Mainland China and regrouped on Taiwan in 1949. Although virtual elimination of high-value virgin stands eventually ground the island's logging industry to a halt, Taiping Shan, Taiwan's last major logging district, managed alone to generate 93,000 m^3 of felled timber as late as 1959.

Overharvesting of virgin timber, escalating labor costs, and growing appreciation of the importance of forests in the ecosystem have diminished Taiwan's commercial forestry industry to its present output of around 50,000 m^3 per year and re-targeted government initiatives to sustainable management of all forest land. In 1992, Taiwan authorities banned all logging in "natural" timber stands (whether virgin or regrowth). The ban is believed effective apart from cases of illicit felling / removal of individual logs of high-value wood (e.g., camphor, red and yellow cypress, and Taiwan zelkova, among others).

In light of the harvest ban on non-plantation timber and current economic disincentives against logging (low market prices, high labor costs, aging labor force), only 500 hectares in Taiwan are now formally engaged in the production of commercial timber. The peacock pine (willow fir or *cryptomeria japonica*), China fir (*cuninghamia laceolata*), and Taiwan acacia (*acacia confusa*) are three commonly cultivated species.

From a commercial standpoint, the quality of both natural and plantation stands in Taiwan is considered generally poor - testimony to the unbridled exploitation of formerly rich forest resources during the past century and to a recent history of reforestation efforts that, in many cases, replanted using species poorly suited to existing soil and climate conditions. A recent Taiwan Forestry Research Institute (TFRI) study estimated that 70 percent of all plantation trees in Taiwan had trunks measuring between 10 and 30 cm in diameter[1]. Most of the annual harvest is currently channeled into low value applications, with over 1/4 of output volume used as firewood. TFRI continues to conduct research into using Taiwan wood in higher value applications (including oriented strand fiber boards, plywood backing, and plastic/wood composite materials) although results are not expected to spur significant expansion of land under commercial cultivation.

In spite of its large reserve base of standing timber, the potential for Taiwan to increase production of wood much beyond current levels is minimal due to a diverse set of factors, including environmental regulations, low import prices, labor flight to higher paying sectors (in a recent survey of the forestry industry in Taipei county, only 20 percent of those employed in the sector were below the age of 40), and the long-term investment required (78 percent of privately held commercial forest

[1] Ten China fir trees, all around 30 years of age, felled for a separate 1999 study revealed an average trunk diameter of 25 cm and an average ring growth rate of 5.5mm per year.

land in Taipei County was inherited by the current owners).

FOREST AREA

Country: Taiwan **Report Year: 2000**	**2001**	**2002**	2003
Total Land Area (million hectares)	4	4	4
Total Forest Area (million hectares)	2	2	2
--of which, Commercial ('000 hectares) (a)	1	1	1
----of commercial, tropical hardwood ('000 hectares)	negligible	negl.	negl.
----of commercial, temperate hardwood ('000 hectares)	0	0	0
----of commercial, softwood ('000 hectares)	0	0	0
Forest Type			
--of which, virgin ('000 hectares) (b)	1,575	1,575	1,575
--of which, plantation ('000 hectares) (c)	437	440	443
--of which, other commercial (regrowth) ('000 hectares)	0	0	0
Total Volume of Standing Timber (thousand cubic meters)	321,000	329,000	333,000
--of which, Commercial Timber ('000 cum)	n/a	n/a	n/a
Annual Timber Removal ('000 cum)	49	49	49
Annual Timber Growth Rate ('000 cum)	n/a	n/a	n/a
Annual Allowable Cut ('000 cum)	200	200	200

(a) includes approximately 130 ha. used to extract firewood
(b) includes regrowth that is protected or otherwise not earmarked for commercial harvest.
(c) includes reforestation done for both commercial and non-commercial purposes.

SOLID WOOD PRODUCTS SITUATION and OUTLOOK

Although most timber is now off limits to commercial exploitation, supporting industries in Taiwan which once processed local wood remain strong, with many Taiwan-based companies now important players in the Asia regional and global trade in lumber and lumber products. Initially, Taiwan firms manufacturing lumber, paper, furniture, and decorative wood products, shifted from using locally-sourced to using imported raw materials. As labor and other operating costs rose steadily through the 1980s and 1990s, *most* shifted some or all production offshore. The most common destinations now for Taiwanese investments in wood processing is China (focused on Guangdong Province), followed by Vietnam, the Philippines, and other Southeast Asian countries.

Asia Wood Purchase Decisions Still Centered in Taiwan: While much production has relocated offshore, key operational decisions in Taiwan-invested factories (regarding such issues as installed equipment, order receipt / scheduling, changes to capacity, and raw material purchases [including wood]) tend to remain in the hands of Taiwan-based executives. Based on this practice, and estimating that roughly 1/3 of China, Vietnam, and Philippine furniture exports benefit from Taiwan investment, the power of Taiwanese log and semi-finished wood buyers greatly exceeds the approximately US$500 million per year derived by considering only Taiwan's wood furniture production.

According to survey data updated in 1999, approximately 2,000 firms are licenced to operate wood processing / production facilities in Taiwan. A majority are small (for example, approximately 2/3 of all furniture makers employ 10 staff or less) and many likely have most or all production overseas. In terms of numbers, Taiwan has 769 furniture manufacturers, 498 lumber manufacturers, 185 plywood manufacturers, 39 "composite" wood products manufacturers (e.g., flooring, special-use composite woods), 84 wood container manufacturers (e.g., crates, jewelry boxes, storage boxes), and 912 firms manufacturing "other" wood products.

Trade

OVERVIEW and OUTLOOK

Approximately US$837.5 million worth of wood and wood products (under HS code 44 [excluding furniture]) cleared Taiwan Customs during 2001 -- 0.78 percent of all imports into Taiwan that year. Uncertain economic times continue to depress demand and restrict purchases, resulting in the 28.1% drop in import value compared with 2000. The outlook for the next few years is expected to be a continued, but slower, contraction in wood imports. Exports of wood and wood products during 2001 registered US$309.7 million. The bulk of Taiwan's wood imports continue to be low-value softwood lumber and plywood destined for low value uses and hardwood paneling and veneers used for decorative purposes.

Hardwoods: Both Taiwan and Chinese cultures appreciate the aesthetic value of hardwoods and, as incomes rise and quality of life issues increase in importance, families are increasingly likely to purchase hardwood interior decoration products including parquet flooring, wall panels, solid wood dining tables, and other decorative items. Temperate and tropical hardwood species seem to be equally well received by consumers.

For most hardwood market segments, consumer preferences should be researched and addressed prior to pursuing market opportunities. For example, better than 90 percent of dining tables sold in Taiwan are round, while the rapidly growing market for rectangular wood tile parquet flooring is particularly hungry for tiles made of unique species (i.e., not currently sold in volume in Taiwan) or in unique configurations. Also please note that general demand for do-it-yourself (DIY) is still relatively shallow - extending little beyond assembling simple furniture out of a box or laying down flooring tiles from a kit (popular now include wood tile "squares" of around 2 ft^2, each square containing a number of pre-assembled and glued wood floor tiles). DIY demand is still expected to become more sophisticated and US suppliers of hardware materials and more sophisticated DIY kits should see significantly increased opportunities over the coming years. The time for market contact and development work, however, is now.

<u>A Note on Flooring</u>: The profitable local parquet flooring industry manufactures wood flooring tiles to a standard 1.5cm (finished) thickness. Flooring lumber exporters able to offer rough hardwood lumber in approx. 1.7cm (unfinished) thickness specifications will help minimize processor waste and provide an important edge over competing suppliers. The 1.5cm (finished) standard is also widely used in China, Japan, and other Asian markets for domestic consumption.

With a well-developed regional wood processing network and growing demand for wood furniture and decorative products (particularly designed to Chinese/Asian-specifications), the highest value sector will likely continue to be semi-processed wood products, such as hardwood dimension lumber and hardwood veneer. Such intermediate products can be final processed at facilities in Taiwan or elsewhere, taking advantage of lower labor costs.

Softwoods: Much of the softwoods imported into Taiwan continue to come in as plywood and dimension lumber. A significant percentage of dimension lumber is consumed by the construction industry to create the temporary supports and casts around which cement is poured to form building foundations, frames, and walls. Around 95 percent of new buildings, both residential and commercial are constructed of reinforced concrete (RC). Plywood sheets are used in many applications including interior decoration, as backing for billboards and signs, and as facing on temporary structures. This is a high volume and low unit value segment.

The market for wood frame and "D-log" homes remains in its infancy. However, changes in consumer attitudes and government policies offer good potential for growth in this sector over the coming years. Note that the ferocious Formosan termite and Taiwan's humid climate underscore a need for pressure treated wood in nearly all outdoor / structural applications. The significant uptick during 2001 in laminated wood category imports from the US, bucking the generally downward trend, is believed attributable to higher value glulam beams. With concerted effort on the part of industry, this positive trend is likely to continue.

Stable economic growth coupled with a rising income base should continue, over the coming 3 - 5 years, to generate healthy growth in demand for imported finished wood products (including the "high end" furniture, DIY, hardwood flooring, and other decorative products where US makers have competitive strength) and for treated softwood lumber for wood-frame construction (single and multiple dwelling homes, small business / academic office buildings, glulam long-span structures, and park / recreational area structures). Imports of items in these categories have grown significantly in value over the past decade in comparison with other forest products industry items. Demand for plywood and second-grade softwood lumber should pick up with any re-ignition of the traditional (reenforced concrete) construction sector.

COMPETITION

Taiwan importers tend to be familiar with the range of wood products available and major supplier countries. End-users typically rely upon importers for such information. While Taiwan/Chinese preference tends toward the darker tropical hardwoods, availability concerns, rising prices, and recent fashion trends toward lighter / brighter wood colors have helped diversify applications for US hardwoods such as maple, oak, and others.

Competition to supply traditional market segments (such as logs, plywood, veneer, furniture, decorative, etc.) focuses heavily on relationship-building and price negotiations due to the strength of Taiwan importers and Taiwan's open trade policies (unlike many product categories, most wood and wood products may be imported from Mainland China). However, in new product areas, such as wood frame housing and wide-span structural (glulam) wood construction, education and promotional efforts not only present opportunities to develop significant new export revenue but are absolutely essential to address local market constraints including architect/builder unfamiliarity with wood construction principles and consumer concerns regarding the longevity and safety of wood frame vs. concrete structures (e.g., performance against termites, rot, fire, and other elements).

During 2001, both the US and Canada sponsored seminars and site visit programs for Taiwan construction authorities and architects to promote development of a wood frame housing market in Taiwan. Japan has been actively promoting "light-gauge steel" frame construction which also incorporates plywood and some lumber in its construction.

MARKET DEVELOPMENT STRATEGIES

Manage customer relations well and know your competition: Taiwan remains a price competitive market for both business-to-business and retail consumer transactions. A well-developed relationship with your Taiwan buyer should help secure for your business some price buffer against competing suppliers, but in general, unless you supply a unique product or have other specific supplier advantages, purchase price is likely to be a recurring topic of discussion. To address price concerns effectively, maintain a good understanding of what competitors can (and cannot) provide in terms of products and services as well as of your own products and services.

A small circle of a dozen or so importers handles most log and lumber imports. Most have historical roots in Taiwans early logging industry and are typically private, family-controlled enterprises. This makes relationship-building and responsiveness to client requests exceptionally valuable tools in building your log/lumber exports into this market (and - as noted above - to China, Vietnam, and other markets) and to secure a steady sales relationship.

Education: Use of structural wood is expected to continue to increase, under its own inertia, slowly over the coming 5-year period, fueled by individual developers' exploitation of niche opportunities. International industry and association support of promotion and basic skill training programs will be, however, essential to position wood as an effective challenge to reinforced concrete (rc) and steel in the large number of proposed and ongoing recreation infrastructure projects (*100s of projects of varying sizes at national, county, and local levels*), in the market for single home / low-rise apartment community developments (*10~30 per year*), and in the market for vacation hotel / retreat construction (*estimate 50 new and renovated hotels / retreats to be finished by 2005*).

In interior design and furniture production segments, US suppliers are encouraged to assist Taiwan buyers (agents and importers) to better understand the range of temperate hardwoods available and wood performance characteristics.

Due to the "local" nature of most wood end-users in Taiwan (and Greater China), exporters and associations are encouraged to prepare and print promotion and education materials in Chinese for broadest coverage. When limited to preparing materials in one Chinese character format only, traditional Chinese (rather than simplified) is still deemed the format most widely accepted in both Taiwan and China.

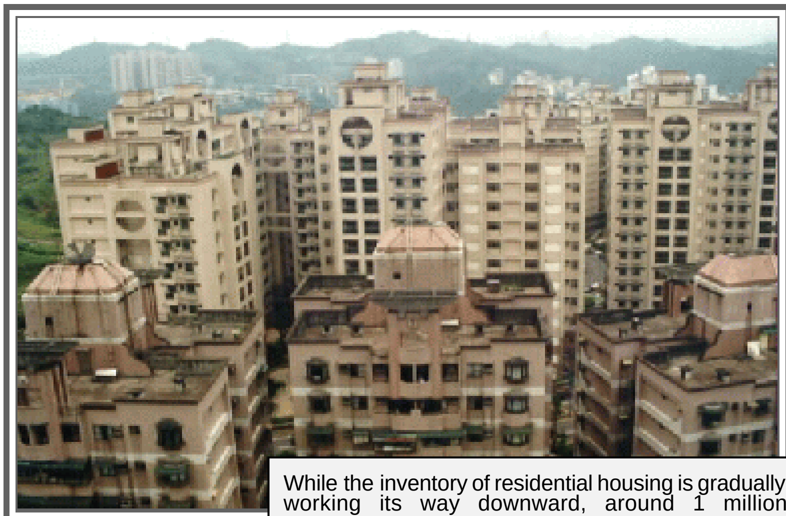
Ecolabeling: At present, consumer awareness / concern regarding ecolabeling and sustainable forest management practices end, in the main, when product cost increases as a result. While there exists future potential for selling premium-valued wood products based on ecolabeling/environmental concepts, such will require significant up front investment in brand development. The government does not have an active certification or labeling program to recognize wood harvested from well-managed sources. To date, the international home products chain B&Q (UK) is the only supplier of wood products (lumber, outdoor furniture, parquet floor tiles, etc) into the market reportedly requiring suppliers to certify that wood used is sourced from well-managed forests (as certified by the Forest Stewardship Council). Their success with sales to date is believed attributable as much to their unique position in the marketplace (the only DIY superstore) as to consumer preference for the FSC label.

Market Segment Analyses

CONSTRUCTION SECTOR

Overview

The construction market in general continues to struggle with the huge inventory of home and office space constructed during the late 1980s through early 1990s. Figures for 2001 show some roughly no change over previous years in terms of vacancy rates - particularly for urban commercial space. The overhang remains significant. At present, Taiwan has around 1 million units of unoccupied residential and commercial space. In spite of this, urban centers continue to see expansion in construction of both residential and commercial high rise buildings. The problem with high vacancy rates is still most serious in Taichung, with a vacancy rate of 12.9 percent, followed by Kaohsiung and Taipei with 9.5 and 4.3 percent vacancy rates, respectively.



While the inventory of residential housing is gradually working its way downward, around 1 million unoccupied concrete apartment units still remain!

The landscape just beyond major metropolitan centers bear the most visible scars of over-development, with many 500 to 1,500 unit condominium apartment communities shouldering occupancy rates below 50 percent and an untold number of smaller developments being, literally, let go to seed. Please note that reported vacancy rates do not necessarily coincide with ownership rates as many households invested in a 2nd or 3rd apartment a decade ago during the real estate boom. Significant consumer spending capital is now tied into continuing mortgage payments for these additional properties (which, during the past ten years, may have halved in actual market value) or in sitting on them, waiting for values to rise again for re-sale.

CONSTRUCTION MARKET

Country: **Report Year:**	**2001**	**2002**	**2003**
Total Housing Starts (thousand units)	36.4	35	37
--of which, wood frame (thousand units)	0.6	0.7	0.8
--of which, steel, masonry, other materials (thousand units)	35.8	34.3	36.2
--of total starts, residential (thousand units)	24.4	25	25
----of residential, single family (thousand units)	2	3	3
----of residential, multi-family (thousand units)	22.4	22	22
--of total starts, commercial (thousand units)	12	10	12
Total Value of Commercial Construction Market ($US mil)	6,000	5,500	6,000
Total Value of Repair and Remodeling Market ($US million)	n/a	n/a	n/a

Authorities issued 22,175 building licenses during 2001 to construct 21,674,505 m^2 in new floor space. These represent 33% and 38% declines, respectively, over the previous year and are well off the recent peak of 86,539 licenses to construct 76,436,000 m^2 of floor space issued during 1992. Also during 2001, 28,507 licenses were issued permitting occupancy / use of 31,167,898 m^2 of new building space. The downward trend in real estate starts reflect the continued overhang of existing properties in the market. However, as most existing construction in Taiwan (97%) is reinforced concrete (RC), niche markets in steel girder, light gauge steel frame, and wood/timber frame have continued to show positive growth in spite of the generally poor economic times.

Rebuilding in the aftermath of the September 1999 earthquake has been slow, but has fueled an increase in construction work around the Taichung and Nantou County areas. Official statistics show the earthquake destroyed a total of 51,348 residential units while causing significant damage to another 53,768 units. Damaged apartments have mostly been renovated - rather than demolished and rebuilt.
Authorities have implemented a residential reconstruction subsidy program for those households whose homes were severely damaged or destroyed by the September 1999 earthquake, with construction by mid-2004 targeted at 25,000 units.

In spite of Taiwan's continuing economic problems, orders for wood frame homes, D-log cabins, glulam wide-span structures, and outdoor recreational and park facility constructions continue to show positive growth, based on reports from Taiwan wood construction industry sources. Seminars and site visits sponsored by the State of Idaho and ATO, in particular, continue to result in a growing number of wide-span glulam projects underway in Taiwan. Projects include residences, small auditoriums, roof structures, and scenic bridges in national parks.

Marketing

Due to the generally high price of land, a predilection toward urban living, and a host of entrenched builder and consumer suspicions about wood structures, Taiwan holds little prospect of becoming a huge export market for wood frame construction. However, convergence of several factors highly favorable to wood frame construction make prospects bright for steady and healthy growth. These positive growth factors include (1) increasing awareness regarding earthquake resistance / safety of wood frame versus reenforced concrete structures, (2) the glut of unimaginative, cookie-cutter residential complexes of reenforced concrete currently on the market, (3) quality-of-life expectations amongst the top 5-10% of Taiwan society that may include consideration of a vacation or second home constructed of wood, and (4) the successful approval and construction of wood-frame homes and other buildings based on building codes recently altered to accommodate wood frame structures.

US suppliers and associations can do more to educate local architects and officials on how to use wood, instead of concrete, in the

Demand for wood frame single family and multi-storey townhouse dwellings is greatest in three principal market segments, namely (1) vacation homes for those in Taiwan's top income bracket, (2) residential developments executed on the outskirts of major urban centers (designed in wood for a particular purpose such as earthquake resistance or practical appeal to an overseas-educated middle class), and (3) principal homes for families in rural areas. If these three opportunity areas were aggressively developed, the resulting market potential is estimated to be an additional 1,750 housing units built within a 3 to 4-year time frame with steady market growth afterward.

To realize the above market potential requires that material suppliers and their Taiwan partners provide initial development projects with practical technical and educational support. Lack of general architect and builder familiarity with wood frame construction techniques is the key supply-side constraint and consumer unfamiliarity with structural wood "products" is the key demand-side constraint to stronger market growth. The latter includes consumer concerns regarding structural wood covering fire safety ("wood burns, concrete does not"), rot and insects ("wood homes deteriorate quickly in Taiwan’s environment"), typhoon resistance, and so on. Concerns can be minimized, and contrasted with the many problems associated with reenforced concrete, through appropriately-designed education and promotion programs.

Policy

The Ministry of Interior’s Construction and Planning Administration (CPA) is responsible to draft and implement construction regulations and standards. Revisions to building codes published in 1996 permit construction of wood and timber frame structures of 4 storeys (14 meters) or less[2]. Structures of greater height can be built, but plans require special CPA review and approval.

Inspection and approval of completed structures fall under the jurisdiction of the county (or municipality) in which a building has been constructed.

Bringing Wood to the Masses: Underscoring commitments to make Taiwan a "greener" island and less vulnerable to the frequent tremors, Taiwan authorities are in the midst of reviewing building codes with a stated objective of classifying wood as a "normal" construction material -- on a par with steel and concrete. While presently approved, in practice, for constructing single family homes, structural wood cannot be used in multi-family or scale developments due to fire code regulations which proscribe the use of *any* "flammable" material as a load-bearing member. The revised building code, the draft of which has been submitted to the CPA for review, is widely anticipated to lay clear ground rules for inspection officials to review and approve plans for multi-unit / multi-family structures designed in wood. The final version is expected to become law by mid-2003.

Recent (January 2000) passage of the Agriculture Development Act opens the door to convert around 160,000 hectares of working farmland[3] to non-agricultural (including residential) use. This new regime eliminates the long-standing ban on farmland re-zoning and should open up substantial tracts of prime real estate around the island to commercial development. Officials plan to pace conversion work initially at around 6,000 ha. per year.

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2 Relevant regulatory documents include "Technical Construction Code" (CPA, January 2000 revision) and "Technical Standards for Wood Frame Building Design and Construction" (CPA, January 1996)

3 The Council of Agriculture was reported to have set this number as a target.

FURNITURE and INTERIORS SECTOR

Overview

As noted, Taiwan has 769 registered firms manufacturing furniture products in Taiwan. Many specialize in certain woods, styles, or furniture items. In addition to local manufacturing, Taiwan has significant investment interests in furniture and wood products production overseas.

Furniture manufacturing is the single wood-related sector registering in the "Top 50" list of Taiwan exports, underscoring the international reputation Taiwan enjoys as a manufacturer of quality mid-range home and office furniture.

FURNITURE & INTERIORS MARKET

Country: Report Year:	2001	2002	2003
Total Housing Starts (number of units)	36,400	35,000	37,000
Total Number of Households)	6,650,000	6,660,000	6,665,000
Furniture Production ($US million)	499	480	475
Total Furniture Imports ($US million)	184	180	185
Total Furniture Exports ($US million)	601	590	590
Interiors Market Size ($US million)	n/a	n/a	n/a

Marketing

The furniture business, along with other well-established wood processing industries, relies on importers for information on wood species, performance characteristics, and availability. As nearly all are small-scale producers in Taiwan, few (if any) firms purchase wood directly from exporters; relying instead on importers for supplies of lumber and other semi-finished wood products.

Therefore, supporting importer efforts to provide furniture-maker customers with information on species, production techniques, and design trends has proven an effective approach to expanding furniture, and interior design segment, sales.

Policy

The combination of high relative labor costs and tightening environmental protection conditions will continue to encourage Taiwan's furniture makers to send production overseas. Less impacted by labor costs, the higher value categories of furniture will continue to be produced in Taiwan and Taiwan will continue to have a broad base of furniture "manufacturers" that focus principally on assembling furniture components manufactured overseas.

Trade

Taiwan imported US$184 million worth of wood furniture and parts[4] during 2001, a decrease of 6.9% over 2000. This figure includes around US$92.7 million worth of wood furniture and US$91.3 million of wood furniture parts - the latter principally destined for local assembly. Key suppliers include Vietnam, Indonesia, China, the United States, Italy, Germany, and Spain.

[4] In certain import categories, products of wood are lumped together with those of cane, rattan, and bamboo materials.

MATERIALS HANDLING SECTOR

Overview

The materials handling sector in Taiwan is not formally tracked by production or consumption statistics. Based on an estimate from the Taiwan Lumber Association that over half the imports of second-grade spruce, pine, and fir (SPF) are used in material handling, market consumption during 2000 totaled roughly 150,000 m^3, on par with 1999 figures. The industry is expected to contract by up to 8 percent this year (2001) due to a domestic economic downturn and sluggish export markets.

MATERIAL HANDLING MARKET

Country: **Report Year:**	**2001**	**2002**	**2003**
Total Value of Industrial Output ($US million)	230,000	230,000	245,000
New Pallet Production (million units)	n/a	n/a	n/a

Wooden pallets are still preferred in the market due to low cost, despite the fact that Taiwan's humid climate and termite problems make wood a less than ideal material. Damaged wooden pallets are not generally repaired due to Taiwan's relatively high cost of labor. Wooden pallet scrap is either recycled as support / repair material or disposed of as garbage.

Tables and Statistics

TARIFF RATE SCHEDULE FOR WOOD AND WOOD PRODUCTS

FOREST PRODUCT TARIFFS AND TAXES (percent)		Tariff	Tariff	Other		
TAIWAN	Product Description	2001	2002	Import	Total US$ Cost	Export
				Taxes/Fees	of Import (d)	Tax
4401	stems and roots, fuel wood, chips, bark, sawdust, and waste	0.0	0.0	0.4	0.4	0
4403	wood in the rough (all varieties)	0.0	0.0	0.4	0.4	0
4404	hoopwood, split poles, piles, pickets, and stakes	0.0	0.0	0.4	0.4	0
4405	sandalwood and other wood flours	0.0	0.0	0.4	0.4	0
4406	railway sleepers	0.0	0.0	0.4	0.4	0
4407	wood sawn or chipped lengthwise	0.0	0.0	0.4	0.4	0
4408	veneer and sheets for plywood	0.0	0.0	0.4	0.4	0
4409	edge/face shaped wood (as for parquet flooring, molding, etc.)	0.0	0.0	0.4	0.4	0
4410	wafer/particle board of wood	3.0	3.0	0.4	3.4	0
4411	fiberboard	3.0	3.0	0.4	3.4	0
4412a	4412 subcategories of UNFINISHED plywood or veneered/laminated wood panels, excepting subcategories 1910, 9221,and 9910	12.5	10.0	0.4	12.9	0
4412.1910	4412a with coniferous wood on both faces, each ply not exceeding 6mm	7.5	7.0	0.4	7.9	0
4412.9221 / 9910	other 4412a with coniferous wood on both faces	5.0	5.0	0.4	5.4	0
4412b	4412 subcategories of FINISHED plywood or veneered/laminated wood panels, excepting subcategories 1920, 9222,and 9920	17.0	15.0	0.4	17.4	0
4412.1920	4412b with coniferous wood on both faces, each ply not exceeding 6mm	10.0	9.2	0.4	10.4	0
4412.9222 / 9920	other 4412b with coniferous wood on both faces	7.5	7.5	0.4	7.9	0
4413	densified/compressed wood blocks, plates, strips, other shapes	2.5	2.0	0.4	2.9	0
4414	wooden frames for painting, photography, etc.	2.5	2.0	0.4	2.9	0
4415	wooden crates, drums, boxes, pallets, other	2.5	2.0	0.4	2.9	0
4416	staves, casks, barrels, vats, tubs, etc.	2.5	2.0	0.4	2.9	0
4417	wood handles, tools, etc.	2.5	2.0	0.4	2.9	0
4418	fitted wood structural products (doors, windows/frames, parquet panels, shuttering, shingles, cellular panels, other joinery/carpentry)	2.5	2.0	0.4	2.9	0
4419	bamboo chopsticks, wood kitchen/tableware	2.5	2.0	0.4	2.9	0

4420	wood statues/ornaments, marquetry, ornamental boxes, other furniture	2.5	2.0	0.4	2.9	0
4421	4421 subcategories covering wood clothes hangers, ships, braille boards, moulds/dies, and "other" articles of wood	2.5	2.0	0.4	2.9	0
4422	this category omitted from Taiwan tariff code	2.5	2.5	0.4	2.9	0
4423	this category omitted from Taiwan tariff code	2.5	2.5	0.4	2.9	0
4424	this category omitted from Taiwan tariff code	2.5	2.5	0.4	2.9	0
4425	this category omitted from Taiwan tariff code	2.5	2.5	0.4	2.9	0
9406	prefabricated buildings	8.0	8.0	0.4	8.4	0

(d) based on CIF landed value of US$100

PRODUCTION, SUPPLY, and DEMAND (PSD) MATRICES: by Product Group

SOFTWOOD LUMBER

PSD Table						
Country	Taiwan					
Commodity	Softwood Lumber				1000 CUBIC METERS	
	Revised	2001	Preliminary	2002	Forecast	2003
	Old	New	Old	New	Old	New
Market Year Begin		01/2001		01/2002		01/2003
Production	12	12	12	11	0	0
Imports	600	451.2	605	450	0	455
TOTAL SUPPLY	612	463.2	617	461	0	455
Exports	16	17.8	20	20	0	21
Domestic Consumption	596	445.4	597	441	0	434
TOTAL DISTRIBUTION	612	463.2	617	461	0	455

Imports

Commodity	Softwood Lumber	1000m3
Time period	2000-2001	1000m3
Imports for:	2000	2001
U.S.	14	19
Others		
Canada	240.6	161.9
New Zealand	123.2	143.6
China	50.9	30.8
Chile	70.1	29.5
Austria	26.3	18.5
South Africa	11.3	10
Finland	9.7	6.9
Total for Others	532.1	0
Others not Listed	43.8	31
Grand Total	589.9	451.2

Exports

Commodity	Softwood Lumber	1000m3
Time period	2000-2001	
Exports for:	2000	2001
U.S.	0	0
Others		
Japan	11	11.5
Hong Kong	3	3.6
Germany	1	2.4
Total for Others	15	0
Others not Listed	0.3	0.3
Grand Total	30.3	17.8

TEMPERATE HARDWOOD LUMBER

PSD Table						
Country	Taiwan					
Commodity	Temperate Hardwood Lumber				1000 CUBIC METERS	
	Revised	2001	Preliminary	2002	Forecast	2003
	Old	New	Old	New	Old	New
Market Year Begin		01/2001		01/2002		01/2003
Production	2	2	2	2	0	2
Imports	510	362	515	360	0	360
TOTAL SUPPLY	512	364	517	362	0	362
Exports	20	19.4	18	20	0	20
Domestic Consumption	492	344.6	499	342	0	342
TOTAL DISTRIBUTION	512	364	517	362	0	362

Imports

Commodity	Temperate Hardwood Lumber	in 1000 m^3
Time period	2000-2001	
Imports for:	2000	2001
U.S.	81.2	51.7
Others		
Malaysia	239	167.4
Indonesia	70.3	59.7
Canada	33.1	22.6
Chile	7.4	10.3
Brazil	18	6
Total for Others	367.8	0
Others not Listed	67.3	44.3
Grand Total	516.3	362

Exports

Commodity	Temperate Hardwood Lumber	in 1000 m^3
Time period	2000-2001	
Exports for:	2000	2001
U.S.	0	0
Others		
Hong Kong	16	13.7
China	2	2.3
Vietnam	1	1
Total for Others	19	0
Others not Listed	2.7	2.4
Grand Total	21.7	19.4

TROPICAL HARDWOOD LUMBER

PSD Table						
Country	Taiwan					
Commodity	Tropical Hardwood Lumber				1000 CUBIC METERS	
	Revised	2001	Preliminary	2002	Forecast	2003
	Old	New	Old	New	Old	New
Market Year Begin		01/2001		01/2002		01/2003
Production	1	1	1	1	0	0
Imports	76	54	73	56	0	58
TOTAL SUPPLY	77	55	74	57	0	58
Exports	7	8.7	7	9	0	8
Domestic Consumption	70	46.3	67	48	0	50
TOTAL DISTRIBUTION	77	55	74	57	0	58

Imports

Commodity	Tropical Hardwood Lumber	1000m3
Time period	2000-2001	
Imports for:	2000	2001
U.S.	2	2
Others		
Indonesia	29.1	20.1
Malaysia	25.7	18.5
Burma	10	6.7
Brazil	2.5	1.7
Total for Others	67.3	0
Others not Listed	9.6	5
Grand Total	78.9	54

Exports

Commodity	Tropical Hardwood Lumber	1000m3
Time period	2000-2001	
Exports for:	2000	2001
U.S.	0	0
Others		
Hong Kong	5	5.8
Japan	1.2	0.9
		1.5
Total for Others	6.2	1.5
Others not Listed	4.3	0.5
Grand Total	10.5	8.7

HARDWOOD VENEER

Country	Taiwan					
Commodity	Hardwood Veneer				1000 CUBIC METERS	
	Revised	2001	Preliminary	2002	Forecast	2003
	Old	New	Old	New	Old	New
Market Year Begin		01/2001		01/2002		01/2003
Production	4	4	4	3	0	4
Imports	170	162	180	170	0	175
TOTAL SUPPLY	174	166	184	173	0	179
Exports	7	6.5	5	6	0	6
Domestic Consumption	167	159.5	179	167	0	173
TOTAL DISTRIBUTION	174	166	184	173	0	179

Imports

Commodity	Hardwood Veneer	1000m3
Time period	2000-2001	
Imports for:	2000	2001
U.S.	4.3	3.8
Others		
Malaysia	117.1	77.2
Papua New Guinea	22.2	42
Cambodia	7.3	16.7
China	6.3	5.9
Chile	5.4	0
Brazil	4.7	8.2
Indonesia	4	5.9
Total for Others	167	0
Others not Listed	5.2	2.2
Grand Total	176.5	161.9

Exports

Commodity	Hardwood Veneer	1000m3
Time period	2000-2001	
Exports for:	2000	2001
U.S.	0	0
Others		
Hong Kong	4.4	4.3
Malaysia	1.3	0.7
Total for Others	5.7	0
Others not Listed	0.5	1.5
Grand Total	6.2	6.5

HARDWOOD PLYWOOD

Commodity	Hardwood Plywood				1000 CUBIC METERS	
	Revised	2001	Preliminary	2002	Forecast	2003
	Old	New	Old	New	Old	New
Market Year Begin		01/2001		01/2002		01/2003
Production	5	5	5	5	0	0
Imports	500	463	550	460	0	470
TOTAL SUPPLY	505	468	555	465	0	470
Exports	70	60.9	70	65	0	70
Domestic Consumption	435	407.1	485	400	0	400
TOTAL DISTRIBUTION	505	468	555	465	0	470

Imports

Commodity	Hardwood Plywood	1000m3
Time period	2000-2001	
Imports for:	2000	2001
U.S.	0.1	0.1
Others		
Indonesia	444.1	289
Malaysia	151.2	137.6
China	60.7	35
Singapore	4	0.4
Total for Others	660	0
Others not Listed	2.5	2.1
Grand Total	662.6	464.2

Exports

Commodity	Hardwood Plywood	1000m3
Time period	2000-2001	
Exports for:	2000	2001
U.S.	15.3	12.5
Others		
Hong Kong	27	23.9
UAE	2.9	11
Canada	2.4	3.4
Total for Others	32.3	0
Others not Listed	16.6	10.1
Grand Total	64.2	60.9

SOFTWOOD PLYWOOD

Commodity	Softwood Plywood				1000 CUBIC METERS	
	Revised	2001	Preliminary	2002	Forecast	2003
	Old	New	Old	New	Old	New
Market Year Begin		01/2001		01/2002		01/2003
Production	8	10	10	10	0	10
Imports	35	63	40	60	0	65
TOTAL SUPPLY	43	73	50	70	0	75
Exports	7	6.4	7	7	0	7
Domestic Consumption	36	66.6	43	63	0	68
TOTAL DISTRIBUTION	43	73	50	70	0	75

Imports

Commodity	Softwood Plywood	1000m3
Time period	2000-2001	
Imports for:	2000	2001
U.S.	1.1	0.1
Others		
China	26.7	44.7
Malaysia	7.9	14.9
Chile	0	1.1
Total for Others	34.6	0
Others not Listed	5.1	2.2
Grand Total	40.8	63

Exports

Commodity	Softwood Plywood	
Time period	2000-2001	1000m3
Exports for:	2000	2001
U.S.	0	0
Others		
China	4	0
Hong Kong	2.4	5
Total for Others	6.4	0
Others not Listed	2	1.4
Grand Total	8.4	6.4